

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-6-23

Relating to Certification of New Off-Road Compression-Ignition Equipment Engines

ISUZU MOTORS LIMITED

Pursuant to the authority vested in the Air Resources Board (Board) by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and exhaust emission control system produced by the manufacturer are certified as described below for use in off-road equipment:

Model Year: 2001

Typical Equipment Usage: Pump, Generator and Other Industrial Equipment

Fuel Type: Diesel

<u>Engine Family</u>	<u>Engine Displacement (liters)</u>	<u>Useful life (hours)</u>	<u>Exhaust Emission Control Systems and Special Features</u>
1SZXL06.5BNA	6.5	8000	Direct Diesel Injection

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The exhaust emission certification standards and certification values for total hydrocarbons (THC), carbon monoxide (CO), oxides of nitrogen (NOx), and particulate matter (PM) (units are expressed in grams per kilowatt-hour (g/kw-hr)), and the opacity-of-smoke certification standards and certification values in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family are as follows (Title 13, California Code of Regulations, Section 2423, as amended by Board approval on January 28, 2000):

<u>Engine Power Rating (kw)</u>	<u>Emission Standard Category</u>		<u>Exhaust Emissions (g/kw-hr)</u>				<u>Smoke Opacity (%)</u>		
			<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
37≤KW<130	Tier 1	Standard	N/A	N/A	9.2	N/A	20	15	50
		Certification	--	--	8.4	--	11	7	22

BE IT FURTHER RESOLVED: That the listed engine models with rated power equal to or greater than 19 KW but less than 130 KW are **conditionally certified** to, and shall be required to comply with, all amendments to Title 13, California Code of Regulations, Sections 2420 through 2427 adopted by the Board on January 28, 2000 at its hearing "TO CONSIDER AMENDMENTS TO OFF-ROAD COMPRESSION-IGNITION ENGINE REGULATIONS: 2000 AND LATER EMISSION STANDARDS, COMPLIANCE REQUIREMENTS AND TEST PROCEDURES." The listed engine models comply with all such amendments, including, but not limited to:

- the amended "Emission Control Labels—1996 and Later Off-Road Compression-Ignition Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year;
- the Board's amended emission control system warranty provisions (Title 13, California Code of Regulations, Sections 2425 and 2426) for the listed engine models, as demonstrated by materials submitted by the manufacturer; and
- new California requirements for the Selective Enforcement Audit (SEA) for the listed engine models, as demonstrated by the manufacturer's submission of materials.

BE IT FURTHER RESOLVED: That the conditional certification described in the paragraph above is conditioned on the amendments being approved by the California Office of Administrative Law (OAL) pursuant to Government Code Section 11349.3, and where necessary, authorized by the Administrator of the U.S. Environmental Protection Agency (U.S. EPA) pursuant to Section 209(e)(2) of the Federal Clean Air Act. In the event that the OAL disapproves the amendments or the U.S. EPA decides not to authorize them, the conditional certification herein of the listed engine models with rated power equal to or greater than 19 KW but less than 130 KW shall be deemed null and void.

The conditional certification described herein is not conditioned on further U.S. EPA action on amendments determined by the Board to be within the scope of an existing U.S. EPA authorization.

Engines certified under this Executive Order must conform to the above requirements under Title 13, California Code of Regulations, Chapter 9, Article 4, and all other applicable California emission laws and regulations.

Executed at El Monte, California this 27th day of December 2000.



R. B. Summerfield, Chief
Mobile Source Operations Division

ATTACHMENT

Engine Model Summary Form

Manufacturer: **Isuzu Motors Limited**
 Engine category: **Nonroad CI**
 EPA Engine Family: **1SZXL06.5BNA .**
 Mfr Family Name: **NA**
 Process Code: **New Submission**

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1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
6BG1NAABA-01	A-6BG1	123.2@2500	60.1@2500	50.1@2500	305.1@1500	65.1@1500	32.6@1500	EM,DFI
6BG1NAABA-02	A-6BG1	103.0@1800	64.8@1800	38.9@1800	305.1@1500	65.1@1500	32.6@1500	EM,DFI
6BG1NAABA-03	A-6BG1	88.4@2500	44.5@2500	37.1@2500	204.8@1500	43.0@1500	21.5@1500	EM,DFI
6BG1NAABA-04	A-6BG1	71.5@1800	44.3@1800	26.6@1800	204.8@1500	43.0@1500	21.5@1500	EM,DFI
6BG1NAABA-05	A-6BG1	98.6@1800	61.7@1800	37.1@1800	297.5@1600	60.9@1600	32.5@1600	EM,DFI
6BG1NAABA-06	A-6BG1	114.8@2000	64.2@2000	43.2@2000	305.1@1600	65.1@1600	34.7@1600	EM,DFI
6BG1NAABA-07	A-6BG1	114.0@2300	56.1@2300	43.0@2300	305.9@1600	63.0@1600	33.6@1600	EM,DFI
6BG1NAABA-08	A-6BG1	125.0@2300	60.0@2300	46.0@2300	305.1@1600	65.1@1600	34.7@1600	EM,DFI
6BG1NAABA-09	A-6BG1	123.2@2500	60.1@2500	50.1@2500	305.1@1600	65.1@1600	34.7@1600	EM,DFI
6BG1NAABA-10	A-6BG1	115.3@2350	60.9@2350	47.7@2350	305.1@1600	65.1@1600	34.7@1600	EM,DFI
6BG1NAABB-01	A-6BG1	94.9@2000	49.6@2000	33.1@2000	260.8@1600	52.2@1600	27.9@1600	EM,DFI
6BG1NAABC-01	A-6BG1	102.7@1800	64.5@1800	38.7@1800	305.1@1500	65.1@1500	32.6@1500	EM,DFI
6BG1NAABD-01	A-6BG1	117.6@2100	62.2@2100	43.6@2100	305.1@1500	65.1@1500	32.6@1500	EM,DFI
6BG1NAABE-01	A-6BG1	96.8@1800	64.2@1800	38.5@1800	305.1@1500	65.1@1500	32.6@1500	EM,DFI
6BG1NAABF-01	A-6BG1	115.3@2350	60.9@2350	47.7@2350	305.1@1600	65.1@1600	34.7@1600	EM,DFI